WHIRRAKEE

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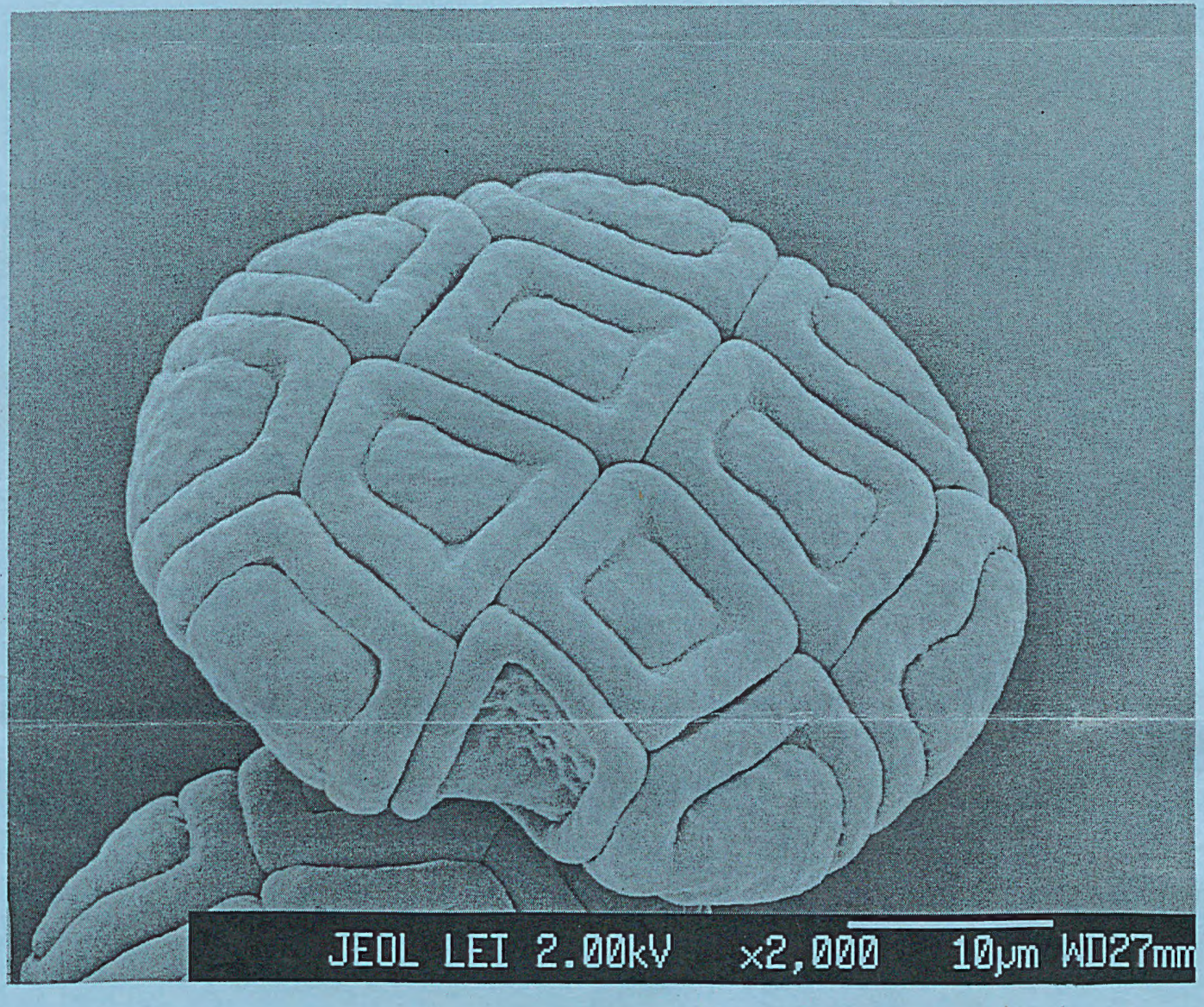

MONTHLY NEWSLETTER OF THE BENDIGO FIELD NATURALISTS CLUB

Bendigo Field Naturalists Club Inc.

Address for correspondence: PO Box 396, Bendigo 3552

Office Bearers for 2000 - 2001

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Membership of the Bendigo Field Naturalists Club is open to all those interested in Natural History. The subscription rates are: Single $34; Family $40; Concession: Single $28.50; Family $34. *Whirrakee* subscription only is $34. These rates include GST.

General meetings are held on the second Wednesday of each month. The venue for General meetings is the Golden Square Senior Citizens Building, Old High Street, Golden Square. Meetings start at 7:30pm and conclude with supper. The Annual Meeting is held in September.

Committee meetings are held on the third Wednesday of each month at 7:30pm. Members of the Committee are the Office Bearers listed above, together with the following members: Darren Green; Maurie Lewis; Kate Lottkowitz; Phil Robertson; Bob Ruddick

Excursions The assembly point for excursions is the Golden Square Senior Citizens Building, unless otherwise specified. Full-day excursions normally commence at 10am (usually on a Sunday); half-day excursions normally commence at 2pm and may be either on a Saturday or Sunday. Full-day or half-day excursions are usually held on the weekend following the General Meeting. Campouts are held several times each year, usually coinciding with long weekends or holiday periods.

The Bendigo Field Naturalists Club has one active sub-group:

Mammal Study Group: meets on the fourth Wednesday of the month at 7:30pm in the Golden Square Senior Citizens Building.

Chairman: John Burtonclay, Fadersons Lane, Mandurang (5439 5710)
Secretary: Bill Holsworth, 13 Nabilla Crs., Bendigo (5443 4063)
Equipment Officer: Maurie Lewis (0407 427179)

Front Cover:
This scanning electron microscope image shows the pollen of *Acacia genistifolia*, Spreading Wattle. Acacia pollen is dispersed in polyads, complex units containing more than a single pollen grain. One of the pollen grains in this picture is damaged. Wattles usually have polyads containing 16 pollen grains, two layers of four in the centre and eight around the outside. Why these pollen grains are dispersed like this and not singly as most other plants is not clear, perhaps it is more efficient for an insect to pick up a lot of of pollen grains at once.
This image was shown during the talk for the July general meeting titled "Pollen Flora of the Box-Ironbark Forest" (see page 8 in this issue). The lettering at the bottom contains information about the microscope settings. It was operated at 2 kilovolts, the magnification was 2000 times (although this final image is further enlarged) and the white bar represents 10μm (1/100th of a millimetre).

Plants flowering in the BFNC garden

Author: Matthew Comer

It has been a few months since the last report on flowering in the garden as we have been through the quieter part of the year for flowers. Of course, this doesn't mean nothing has been happening. There is something flowering in the garden virtually year round and the recent months are no exception.

Daisies such as the Common Everlasting (*Chrysocephalum apiculatum*) and the Minuria have produced a few flowers continuously. The flowering of the two cassinias in the garden (*C. arcuata*, Drooping Cassinia and *C. uncata*, Sticky Cassinia) has come and gone and now the masses of seed are slowly dispersing.
Also, the Ruby Salt Bush (*Enchylaena tomentosa*) has flowered and produced its bright fruit right through this period and continues to do so.
Three wattles, Spreading Wattle (*Acacia genistifolia), Woolly Wattle* (*A. lanigera*) and Bent Leaf Wattle (*A. flexifolia*) have brightened up the garden during recent weeks with profuse flowering.

The following plants are also blooming at this time:

Acacia acinacea	Gold Dust Wattle
A. aspera	Rough Wattle
A. pycnantha	Golden Wattle
Allocasuarina muelleriana	Slaty She Oak
Correa spp.	
Grevillea alpina	Cats Claw
G. rosmarinifolia	Rosemary Grevillea
Hakea decurrens	Silky Hakea
Olearia teretifolia	Cypress Daisy Bush
Philotheca verrucosa	Bendigo Wax Flower
Spyridium eriocepahalum	Heath Spyridium
Westringia crassifolia	Whipstick Westringia

Many of these will continue to flower for some time and more are about to begin, so we can look forward to another colourful spring.
In the future, the new plants put in this season will add even more diversity and colour to the garden.

It is also good to see some of the summer dormant herbs such as the Chocolate Lily (*Arthropodium strictum*), Blue Devil (*Eryngium ovinum*) and Magenta Storksbill (*Pelargonium rodneyanum*) have re-appeared after the autumn break and are slowly building up to their spring flowering.

...more news from the Bendigo Field Naturalists garden

by Barbara Pelczynska

On Sunday 22nd July we had a very successful Working Bee. 9 people attended, and we have planted 410 plants all over the garden, including area 4.

As always our garden looks good and colourful. It is July and the wattles are out in full bloom. The Bendigo Wax is also in flower. My hope is that people will see the beauty of it and try to use indigenous plants in their gardens

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Further information on:
VFNCA 2001 Spring Campout
The Grampians 26th - 30th October 2001

hosted by the Ararat and District Field Naturalists Club

Just a reminder that the 2001 Spring Campout will be based at Camp Acacia in Halls Gap. The camp has been booked from Friday 26th until Tuesday 30th October.
For those interested, more detailed information about this camp was in the July Whirrakee (page3/4)
Below is some additional information:

The booking form is included in this issue on page 13. Could participants please include a stamped self-addressed envelope with their booking form. You will be notified whether you have a place or meals at Camp Acacia (places will be distributed on a first in basis)
Please do not send any money until you have confirmation of a place.
Booking forms should be back as soon as possible.

The rooms at Camp Acacia contain bunks and some single beds. A number of dormitories accommodate 12 people (6 bunks) and some accommodate 6 people (usually 3 bunks). If you

have a group of people you would like to share with, could you please mention their names on the booking form. We will try to meet people's needs but this will not always be possible.
Don't forget that you need to bring your own linen, sleeping bags/doonas.
There will be some kitchen rosters for meal times involving setting up table and clearing up afterwards.

Payment can be made as soon as you have had your booking confirmed and all payment must be made by Friday, 7th September. Any cancellation after 1st October will incur a fee of $20.
Excursions will not be finalised until much closer to the time and lists will be put up on the Friday evening for people to register for these.
There will be a speaker Saturday evening and possibly Sunday.
We will be looking forward to seeing you in October.

Send booking forms to: Joan Pitaro 25 George Road Ararat 3377 ph 03 53523632

Letter from BRIT Library
by Jenny McIntyre
Acting Library Manager

Dear Dr Holsworth
Thank you for the donation of books and other print materials to the BRIT library. One of the teachers in the Natural Resource Management course gave advice on what would be useful to keep in our library. I am happy to say that most of the material was considered useful and will be a great resource for the students.
The items not required will be sold at our annual book sale to be held in August unless the BFNC would like to retain them. Please let me know.

Editor's Note: the list of books follows. If any member would like to see the Club retain a book or is interested in obtaining the book for their own library, please let us know.

Books not required by the BRIT Library
Across mountain and plain/Keith C.Rogers
Australian alpine life/John Child
Australian plants at risk/William Hartley
Australian wildflowers in natural colour/F. Hurley
Banksias of W.A./Lillian M.Callow
Bramble bees and others/J.H. Fabre
British birds in their haunts/J.A.Johns
Flora of rocky cape/M.J.Firth
Flora of South Australia, part I-IV and supplement /J.M.Black
Frontiers North/Ivan O'Riley
Lamington National Park/Tony Groom
Native Flowers of Australia/Australian News and Information Bureau
Nature's year in Sandringham (pamphlet)
Ovens Valley in colour/Jocelyn Burt
Prehistoric life/Bryan Patterson
Ring of bright water/Gavin Maxwell
See how they grow/Mary Field et al.
Shrubs and trees for Australian gardens/E.E. Lord
The lichens and mosses of MacRobertson Land/Rex B. Filson
The life of the spider/J.H. Fabre
The Sandringham environment series no.3 List of local native plants/J.H.Willis (ed.)
The story book of birds & beasts/J.H. Fabre
Trees unafraid/Rita F. Snowden
Victoria's playground - the Westernport region
Vicorian building stones (2 copies)
Wildflower country/Mullewa Tourist Promotional Committee
Wildflowers of Victoria/Jean Galbraith
Wildflowers of Western Australia/C.A. Gardner

Platypus Survey of North Central Region

Author: Jon Leevers, Riverine Officer, NCCMA

The waterways team of the North Central Catchment Management Authority is undertaking a community survey of platypus sightings in the North Central region. We are providing an opportunity for any interested community members to contribute their sightings of platypus to an NCCMA database. The purpose of the survey is to develop an indication of platypus distribution in waterways of the North Central region and also to provide information on their behaviour and habitat requirements.

I have enclosed copies of the survey questionnaire and would greatly appreciate it if you distribute them to interested members *(see editors' note overleaf)*
Thank you for your cooperation with this survey. If you have any queries please contact me on 5440 1807.

Editors Note: If anybody is interested in taking part in the survey, the Mammal Study Group has copies of the questionnaire. It include questions on sightings, their date and locations as well as seasonal information. Phone Bill Holsworth for a copy of the questionnaire.

Report from the Bird Observers Group North Whipstick, 23rd June 2001.

Little Pied Cormorant
Dusk Moorhen

Little Eagle
Wedge-tailed Eagle
Crested Pigeon
Galah
Little Lorikeet
Purple-crowned Lorikeet
Musk Lorikeet
Eastern Rosella
Red-rumped Parrot

Laughing Kookaburra
Brown Treecreeper
Superb Fairy Wren
Shy Heathwren
Striated Pardalote
Spotted Pardalote
Chestnut-rumped Thornbill
Yellow Thornbill
Weebill
Wattlebird
Spiny-cheeked Honeyeater
Noisy Miner
white-eared Honeyeater
Yellow-tufted Honeyeater
Yellow-plumed Honeyeater
Fuscous Honeyeater
White-plumed Honeyeater
Brown-headed Honeyeater
Black-chinned Honeyeater
White-naped Honeyeater
White-fronted Honeyeater
Tawny-crowned Honeyeater

White-browed Babbler
Varied Sittella
Crested Bellbird
Golden Whistler
Grey Shrike Thrush
Restless Flycatcher
Black-faced Cuckoo-shrike
Grey Butcherbird
Magpie-lark
Australian Magpie
Grey Currawong
Australian Raven
Little Raven
White-winged Chough
Diamond Firetail
Welcome Swallow
Silvereye

An open letter to all members of the Bendigo Field Naturalists Club.

Our Annual General Meeting for 2001 will be held in September. As you know during that meeting all positions on the committee and the executive are declared open and nominations are sought from the members.

We all enjoy the monthly lectures, workshops and occasional excursion. I am sure other members like me, are proud of our newsletter, *Whirrakee* and our indigenous garden. Before I have joined the Committee, I was not aware how much work was done by its members.

I have joined our Club about 10 years ago. Over the years I have realised how important the Club is to the preservation of the natural environment, especially of Box-Ironbark Forest. The creation of Whipstick State Park is one of our Club's past achievements. Our members have a lot of expertise. This expertise is generously shared with others. We take active part in committees, write submissions and make representations at panel hearings and tribunals. Through all of this we have earned the respect of the community and our opinion is sought on planning, weeds eradication etc to name a few. Our books are widely used.

I have personally, learned a lot through the lectures and workshops organised by our Club on the monthly basis. I also feel a sense of achievement because the Club, through its members, contributes to the enhancement of the environment and the education of the general public. I therefore encourage other members to take a more active part in the running of this very important Club through becoming members of the committee and executive. So please ask to be nominated.

Barbara Pelczynska

Faugh-A-Ballaugh Flora Reserve (Part 1)

Author: Darren Green

In this article I present a summary of the author's field observations made on the geology, hydrology, flora, and fauna of the Faugh-A-Ballaugh Flora Reserve. It is based upon a recent assignment submitted to La Trobe University (Bendigo). In it I make comment on the use, value and impact of the reserve, and conclude with my own opinion of the future that it may hold.

Faugh-A-Ballaugh Flora Reserve is situated to the north-east of the Diamond Hill Historic Reserve, bordered between Belle Vue and Woodward Roads to the north and south respectively, and Vains Street to the west, in Bendigo, Victoria. The area consists of undulating ridges and gullies, lying between 250 and 290m above sea level, with an annual precipitation of between 400 and 600mm (Ellyard 1994, p.26) falling mostly in winter (Crowder 2000, p.139). Vegetation is chiefly Box-Ironbark with a scrubby understorey. The land is regulated by the Diamond Hill Historic Reserve Committee and the Deborah Reef Action Group.

The detailed structure of the geology of the Bendigo field is known from surveys of mine workings (Talent & Thomas 1973, p.70). The bedrock comprises of folded sedimentary mudstone and sandstone, which date back to the Lower Ordovician period. Where rock is exposed, the direction of the strike travels 336° north, north-west. The reserve consists predominantly of sandstone and mudstone, with some quartz represented as surface rocks. Rocks are typically less than 150mm diameter, although larger stony outcrops occur along ridges and slopes. Soil is shallow, consisting of light coloured, orange-brown clays and silts, derived from sandstone and mudstone. Previous mining sites are evident in the area, which have exposed shale. Land fill dumping has also occurred in recent times, this is most evident by the accumulation of bricks, concrete and bitumen.

Water shed typically works its way into non-distinct ephemeral creeks in gullies, ultimately finding its way to the Bendigo Creek. Faugh-A-Ballaugh Flora Reserve contains several dams, two of which would be classed as holding permanent water. One dam has been restored by the Quarry Hill Golf Course and is mainly fed from the Diamond Hill Channel. Other dams in the reserve are relics from previous mining activities, where gullies have been dammed, however water does not collect for any period in these remnant dams.

The Faugh-A-Ballaugh Flora Reserve is rich in an abundance of flora, and like other Box-Ironbark Forests, most plants are not observed at a single time of the year as many are seasonal growers. A return visit in spring, not only gives a colourful show of wildflowers, but announces the presence of many dormant varieties, such as Orchidaceae and Droseraceae. The prominent plants include *Acacias, Bursaria spinosa, Cassinia arcuata, Daviesia ulicifolia, Dianella revoluta, Philotheca verrucosa, Eucalyptus spp., Hakea decurrens*, and *Melaleuca decussata.* The trees are generally coppice re-growth, as a result of early mining activities. Some old growth is present, however no natural hollows were observed, although artificial nesting boxes are present. Introduced plants have the potential to spread across the reserve causing local extinction to indigenous plants, thereby resulting in a habitat change which may in turn affect the fauna. Plants have been introduced through the dumping of rubbish and land fill practices. Birds and wind born seeds are also responsible for the spread of plants.

The fauna of the Faugh-A-Ballaugh Flora Reserve is diverse, boasting some nine reptile, five frog, six mammal, and a vast array of bird species and insect orders. These figures may alter with further surveys. In comparison to other public lands around the Bendigo district, Faugh-A-Ballaugh Flora Reserve, for its size, has reasonable population levels for each species. Unfortunately, six species of mammal have been introduced to the reserve, and may account for local extinction of indigenous plants and animals, or account for the spread of disease and weeds. One would expect *Antichinus* and *Sminthopsis* to have resided in the reserve before the arrival of cats, for example. Foxes and cats are the most obvious predators, however bees also swarm into the area and may displace native mammals in competition of available nesting boxes.

The most contentious issue for Faugh-A-Ballaugh Flora Reserve is mining. Several years

ago, Bendigo Mining NL proposed bulldozing the site so that mine waste could be dumped there. Residents and conservationists opposed the proposal, and for the time being have won. However, prospecting is currently allowed with relevant permits. Past mining activities, however, are deemed to be of regional or local cultural heritage significance (McCarthy 1997, p.42). Remnants of past mining activities are indicated by stamp battery foundations, mine shafts, mullock heaps and sluiced gullies. Although classed as historically significant, they are essentially the primary areas of land filling practices and dumping of rubbish.

Motorcycle riders frequent the area, as indicated by their tracks. This recreational activity causes considerable erosion, and although motorcycles are not permitted off-road, the evidence of their activity is more prominent in revegetation areas. Faugh-A-Ballaugh Flora Reserve appears to be a popular drug injection site, as indicated by the used syringes littering the reserve. Although this practice is illegal, unsightly, harmful to themselves and others, drug users cause no physical harm (eg. erosion, and other degradation activities) to the habitat. The problems lay with potential health issues, morals, and ethics.

Other recreational issues include bushwalking, as is frequently promoted through activities such as "Spring in the Bendigo Bush." Nature studies, such as those conducted by the Bendigo Field Naturalists Club, TAFE Natural Resource Management students, and La Trobe University Outdoor Education and Nature Tourism students, are undertaken with minimum impact, and can only benefit the environment in the long term. In addition, Bendigo Field Naturalists Club members, along with the Deborah Reef Action Group, have placed nesting boxes through the reserve to encourage and preserve the wildlife. These resources are utilised for conservation and educational purposes.

In conclusion, the Faugh-A-Ballaugh Flora Reserve is rich and diverse in its flora, fauna and historical significance. In spring the wildflower display is spectacular, and people come from around Victoria to see its show. There is a sense of tranquillity and appreciation of nature at this reserve. Certainly, those who have put many hours into managing the reserve have done an incredible job to restore its beauty and wildlife. However, it is the author's opinion that the Faugh-A-Ballaugh Flora Reserve is perhaps on shaky ground. It has the threat of mining looming over its head, invasion from introduced plants and animals, and abuse from unscrupulous users. The area does not come under the jurisdiction of the Department of Natural Resources and Environment, despite they themselves promoting the whole "Diamond Hill Historic Area."

What is saving the reserve is the residents and interested parties who have put time into managing the area. Their acts have encouraged notable wildlife, such as *Phascogale tapoatafa*, back into the reserve, thus allowing the area to become an important habitat area for the species, and in effect, may just help save the reserve. Their promotions of the reserve's animals and wildflowers in spring have also brought about a recognition of the area. Ironically, a contributing factor to preserving the reserve, is the cultural heritage significance from past mining activities. If these, and other people continue their efforts and government lobbying, the Faugh-A-Ballaugh Flora Reserve may very well become protected under regional, state, or national park status, and be around for future generations to enjoy.

References

Crowder, B. (2000) *The Wonders of the Weather*, Canberra: Bureau of Meteorology.

Ellyard, D. (1994) *Droughts & Flooding Rains*, Sydney: Angus & Robertson Publication.

McCarthy, J. (1997) Historical Archaeological Survey of the North Deborah Reef Project Part One - Historic Sites, Draft Report for Bendigo Mining NL, Rosslyn Park, South Australia: Austral Archaeology.

Talent, J.A. & Thomas, D.E. (1973) Stratigraphy & Structure of the Palaeozoic of West-Central Victoria, in McAndrew, J. & Marsden, M.A.H. (eds), *Regional Guide to Victorian Geology*, Melbourne: School of Geology, University of Melbourne, p.65-82.

Acknowledgments

I wish to thank John Burtonclay and Maurice Lewis for their conversations regarding the plants and mammals, in addition Tom Burton and Sabine Wilkens for their comments on the original assignment paper.

July General Meeting:
Pollen Flora of the Box-Ironbark Forest

Katherine Legge and Sabine Wilkens

Pollen.....what is it? where does it come from? and where does it go?...constituted the introduction to this talk about our research project at La Trobe University on the Pollen Flora of the Box Ironbark forest.

Conifers and flowering plants produce pollen in male cone-like structures and the anthers of flowers respectively. When mature, this pollen needs to travel by means of wind or animal agents to the female parts of the plant. If successful transfer of pollen has taken place, pollination is achieved. Furthermore, if the pollen tube grows towards the ovary of the plant and the contents of the male nucleus fuses with that of the female egg cell, fertilisation is achieved. Successful fertilisation produces an embryo, which, along with several coverings and a food supply will make up the seed, the plant's next generation.

Pollen morphology is very characteristic for the taxon, this may be at the species (rarely), genus or the family level. Thus the presence of pollen can be used as evidence for the presence of certain vegetation. Apart from the uses listed below, this fact has long been 'utilised' in forensic science, where the jacket of the suspect may have pollen adhering which points to the wearer having been at a particular location recently, or..... in assessing the cause of death in domestic stock after they have consumed certain plants, or.....in the quality control of honey which claims to be made of the flowers of species x.

***Eucalyptus tricarpa**. Facing us is one of the three pores through which the pollen grain will germinate.*

The Box-Ironbark Forest has been receiving some attention recently and Bendigo is in a very good position to add to the knowledge base about these diminishing forests. La Trobe University is located close to One Tree Hill and it hs a richly diverse "private backyard" backing onto this regional park. This lucky configuration was one of the influences to get this project off the ground.

The aim of this research project is to construct a data base of pollen images.
An internet site from Newcastle University has pollen from several areas listed (e.g. Hunter Valley, arid inland, Tasmania) and the addition of Box-Ironbark Forest is a significant chance to add our regional forests to this national forum.

Such a pollen data base has many practical applications:

• the most widely used one are **applications in paleo-ecological studies.**
Pollen is very resistant to decomposition and although small, the walls of pollen grains are very very hard and can survive undamaged in geological deposits for thousands and millions of years.
Because pollen is so characteristics for a taxon, conclusions can be made about the flora at the time.
Looking at sediment cores of buried soils or deposits from wetlands can reveal much about the distribution and composition of, for example, the box-ironbark forests in past times.

• other applications include **taxonomic studies.**
One can assess the closeness of a relationship by looking at pollen. For example, most of the *Acacia* species investigated so far have complex pollen containing 16 grains (as seen on the front cover). One wattle, *A. paradoxa*, has always less than 16...why?

• studies of **pollination agents**. The sculpturing can tell something about the agent of pollen dispersal. Generally smooth pollen is carried by the wind and highly sculptured pollen by an animal vector. Some dispersal agents are not known and this may reveal something about pollination relationships. Insects and birds may also be captured and pollen samples from their body could reveal which plants they have visited.

• as **teaching aid**. We have found this subject to be very suitable to teach about size, scale, microscopy and instrumentation in general, particularly to school groups.

• **sheer aesthetics**. We love the look of our subject, but a more concrete example of its appeal is the work of Judi Bowden, an honours student in fine arts at LaTrobe University, Bendigo. Judi has her work exhibited last year at the Bendigo Art Gallery and, for her pollen image, won a major prize.

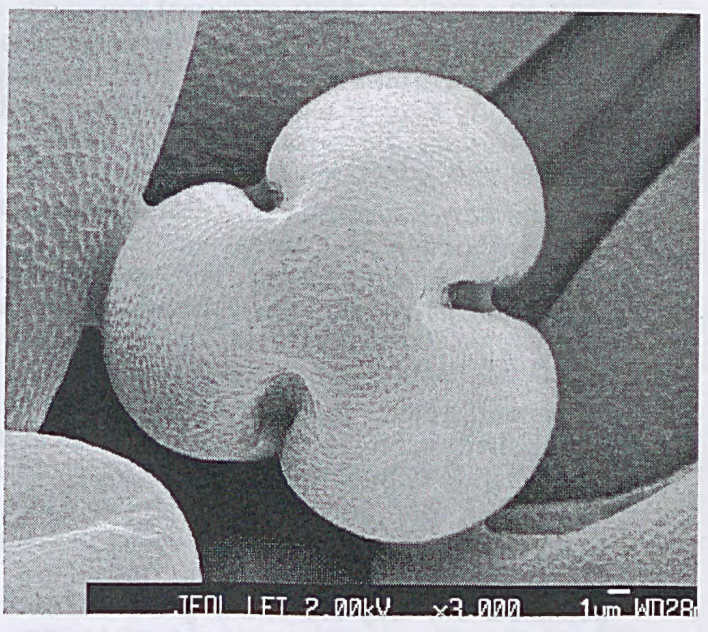
Katherine Legge, a physicist at La Trobe University has used this project to become familiar with the operation of the Scanning Electron Microscope. Once the project started, it became apparent that there was a lot more to this job than taking lovely pictures.
For example, pollen from the one species can differ quite dramatically in looks. How much variation is normal and what would need to be ignored as "abnormal"? Does pollen appearance or its viability change over the period of flowering? Or, is it our specimen preparation, which simply involves drying the pollen grains on the metal stub, then coating them with a very thin layer of gold/palladium, that allows them to be injured in the microscope column?

At the beginning, pollen, occasionally, sank into the glue of the double-sided sticky tape we used to hold it on the stub. We now coat the stubs with wax and heat them gently just before the pollen is placed on them and the results are much better.

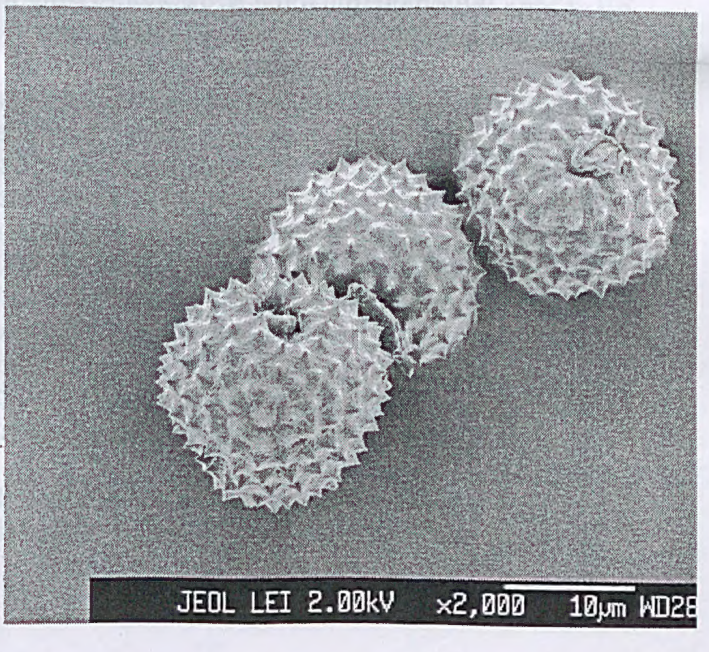
Final images show various aspects of the three-dimensional pollen grain are put through Photoshop to remove "rubbish" or other distracting material. One of the last images shown during the talk was a page with three such pollen images and various pieces of written information, ready to go to the Newcastle web site. As the collector's name appears on this page, we used this to appeal to any member who wants to contribute flowers to this project. We do not have a permit at this stage to collect from any public land, so any contributions must come from people's box ironbark backyards. However, even with that constraint, we believe we will be awfully busy over the next few months...

Intense questioning by the audience took up quite a large proportion of our allocated time. In fact there were so many questions throughout the talk that we went well over time and had to be terminated (!) Apologies to those who wanted to get home early! However, we had a very good time and were very happy about he lively audience participation.
We often wish our students would show such interest in what we have to say!

Correa reflexa. *This pollen is rice grain shaped but shows the three elonagted pores when viewed head on.*



Cassinia arcuata. *The pollen from the daisy family are typically spiky.*



European Wasps and Native Plant Survival
David Cane Stratford
From: Growing Australian, June 2001

Many of us, in our wanderings into the bush, admire, smell, classify, photograph and sketch our native plants. Few of us, while being inspired by the glossy green leaves of *Tristania laurina*, or the intricately bipinnate foliage of *Acacia dealbata,* or overcome by the beauty of the rich red flowers of *Astroloma conostephiodes*, give a second thought of how the next generation of than plant will come about. If it is growing successfully now, it will be for generations to come.

For this new generation to exist, most of our flowering plants need to set viable seeds. A large percentage of our native plants rely on native insects (including native bees) to pollinate them.

In recent years, the European Wasp has established itself in the Eastern States of Australia. In Gippsland this pest is widespread throughout our forests and Alpine Parks. Campers and walkers in these areas over the summer and autumn months find them a nuisance, but they are creating a much more sinister problem for our native plants.

European Wasps are equipped with non-barbed stings (they can inflict multiple doses of their toxin) and are meat eaters (1). As with most animals, they require a source of sugar and protein for their survival and reproduction. Their sugar source is obtained by eating fruits and their protein comes from eating insects (or in extreme cases they have been observed eating the teats of cows) (2).

Our native bees do not have stings so have no way of protecting themselves against European Wasps. As these pest animals et their way through the native bee population as well as other insects, very little is observable to the native plant enthusiast. When there is a dramatic drop in the pollination of our native plants a dramatic drop in seed production occurs. BUT it is not immediately obvious. It will be many years before the adult plant dies and is not replaced by seedlings. Only then will the problem become apparent.
Another activity of European Wasps is to eat the fleshy fruits of plants. This damage makes the fruit less attractive to native birds and possums which normally disperse the seeds. At the present time, NRE and Parks Victoria show no interest or understanding of the potential problem and are not taking any action to lower the wasp populations.

1 www.nre.gov.vic/pest plants
2 Peter Davis Farm note No.8/98

Editors' Note:
This may be potentially a huge problem, but imagine how difficult it would be to set up experiments to show the real threat to native bees and their plants. The introduced honeybee will have to be taken into consideration as well, as it is pollinating many of our native plants now. In spite of some field experiments done in this respect, it is still unclear what impact honeybees have on the native bee and native plant populations, partly because so little is known about the plant-animal relationships in our bushland.
As the bush flowers are coming into bloom in the next few months, we would welcome any observations by members of behaviours and feeding/pollination relationships between these insects and our native flora.

Spring in the Bendigo Bush

1. John Morieson's talk will be on "Aboriginal Legacies in the Bush, a Whitefella Appreciation" a description of what is there and how it may be interpreted , protected and appreciated. It will be held on Wednesday 5th September, 2001, at the Senior Citizens Rooms, Golden Square at 7.30pm - Entry by a gold coin donation.

2. Kunchana's Exhibition of Victorian birds "Beauty of Nature" in Penfold's Gallery, the opening night will be on Friday 7th September, 2001 at 6pm.

3. The Wild Flower Show will be held on Saturday 1st of September and Sunday 2nd of September, from 10am till 4pm at the Senior Citizens Club Rooms, Golden Square. It will be open on Saturday at 11am. Entry by a gold coin donation. Books and plants will be for sale.
On Saturday there will be an excursion lead by Elvine Hogan starting from the Senior Citizens Club Rooms.

Permaculture Bendigo
Meets on the second Wednesday of the month at 7:30pm in the Gravel Hill Gardens office building
65-71 Mundy Street Bendigo

Come along and share ideas and experiences.
Each month we will have a guest speaker
Cost $ 2.00 to cover tea, coffee, supper and energy used....

Fresh produce is also available at times. To enquire about this and other matters, please contact Evan Davies on 0419 472835.

Wednesday 8th August
Grafting Fruit Trees
Tim will look at different methods of grafting and budding. Bring along a grafting knife if you have one and some prunings from any tree you might like to swap with someone.

Advertisements

The Club regularly receives advetisements for various items which could interest environmentally conscious/active people but which may or may not be appropriate to publish in the *Whirrakee*.
For your information, we recently received information on two gadgets, the *Ezy Planter* and *Eco Planter* (a tree planting drill and tree planting drill/weeder respectively).

Another advertisemnt relates to bamboo stakes and 1 & 2 litre milk carton guards for a cheaper alternative to conventional wooden stakes and tree guards.

If you plant a lot of trees and you are intersted in these flyers, please ring Sabine Wilkens (54 432797) and I will send them on to you.

Wildlife Rescue & Information Network Inc.
W.R.I.N. is an organisation dedicated to the care of orphaned, sick or injured native animals.
It is fully endorsed by the Dept of Natural Resources and Environment.
Please call our Emergency Number for Help for Fauna in Need. Phone: 0419 356433

Free collection of unwanted and de-registered farm chemicals in north-east Victoria

ChemCollect Victoria, the free and final collection of unwanted and de-registered farm chemicals, will be in north east Victoria from late August to late October 2001.

The program offers farmers the opportunity to get rid of their unwanted and de-registered farm chemicals including organochlorine pesticides and arsenic based products.The collection covers all agricultural and vetenary chemicals.

Farmer are urged to check their sheds and participate in the program by bringing their unwanted chemicals to a drop-off collection site.

While the collection drop-off points have not been confirmed, Bendigo is one of the ones planned (also Elmore and Heathcote as well as many other places, please contact the editor if interested).

The dates, locations and times will be advertised in local papers and through other avenues once they are finalised.

Farmers should call 1800 020 190 for a drop-off appointment. Appointments are required for safety, to minimise waiting times and to make sure there is sufficient space available in the collection trucks for all the chemical brought in for disposal.

The chemicals will be transported to Melbourne for treatment and safe disposal.

Farmers wanting more information about the program can call the information line, 1800 660 667 or visit the website
www.chemcollect.vic.gov.au

The Environmental Protection Authority is implementing the scheme in Victoria. The Victorian Government (through EPA) and the Commonwealth Government (through Enviroment Australia) jointly fund ChemCollect Victoria.

At the September Annual General meeting, all positions are declared vacant. Please consult the front cover of Whirrakee to see which types of positions become available, then use the form below for nomination. Bring the form with you to the AGM, or, better still, mail it to the BFNC before the meeting.
Nominations are accepted for executive office bearers as well as for committee members.

Nomination Form for positions of the Bendigo Field Naturalists Club.

Position:

Nominated by:

Nominee:

GRAMPIANS CAMPOUT BOOKING FORM -

NAME :.....

Address;:.....

.....

..... PH. .....

PLEASE CIRCLE YOUR REFERENCE

Accommodation and meals from Friday to Tuesday (includes Frid. evening meal and Tues lunch)

Cost $ 170

Accommodation and meals from Friday to Sunday (includes Frid.evening meal and Sun lunch)

Cost $ 100

Meals only (these will only be available if the camp is not fully booked)

Full 4 days Friday dinner - Tues lunch inclusive
Cost $ 110

Friday evening - Sunday lunch
Cost $ 70

Registration only $30

I would be able to sleep in a top bunk. Yes / No (Circle your answer)

Special dietary requirements

I would like to be accommodated with :-

Bendigo Field Naturalists Club Inc.

Speaker Syllabus for General Meetings 2001– Second Wednesday 8:00 pm

Please check each **WHIRRAKEE** for additional events or changes. If a workshop is planned, it will start at 7:00pm. The speaker will be introduced at 8:00 pm.

Date - 2001	Topic	Speaker
8 August	**Managing a Saline Environment: the Success of the Loddon-Murray Community's Irrigation Salinity Management Plans**	**Steve Lottkowitz**, DNRE Bendigo
12 September	***Annual General Meeting***	
10 October	**Wildlife Shelters and Wildlife Rescue**	**Garry Cheers, Wildlife Rescue and Information Network Inc.**
14 November	**The Landscape Approach to Biodiversity**	**Geoff Park,** North Central Catchment Management Authority
12 December	**Christmas Dinner** At the Hall, Bring Salad, Casserole or Dessert. Come early, to sit down at 6:30, and visit with friends for as long as you like.	

Diary

The General, Bird Observers Group and Mammal Survey Group meetings are held at the Golden Square Senior Citizens Building, Old High Street, Golden Square, unless otherwise indicated.

General Meeting

Wednesday, August 8, 7:00pm
The workshop this month, conducted by Darren Green, will introduce Fresh Water Turtles.

8.00pm. Steve Lottkowitz (DNRE Bendigo) will be talking about "Managing a Saline Environment: the Success of the Loddon-Murray Community's Irrigation Salinity Management Plan.

Wednesday, September 12, 7:30pm

Annual General Meeting

Bird Observer Group

Sunday, August 19
Carnies Reserve, Tang Tang Swamp and Tandarra area
Depart: 9am, Eaglehawk Town Hall
Bring: Binoculars, protective clothing and footwear, lunch, morning and afternoon tea.
Contact: Alf Howe 54483383
Long time resident of Prairie West, Alf Howe is keen to share his wealth of knowledge of the habitat and its birds with us. If Alf isn't able to conjure up some Grey Crown Babblers or even Brolga, we will surely see a good variety of bird species anyway.

October.....date to be announced
Spring Gully area.
Contact: Bev Brooks ph. 54422990.

Sunday, November 11
Bullock Creek.
Meet 9am in Lockwood Road,
Kangaroo Flat lights (car-pool)
or 9.30am at Lockwood Picnic/Sports reserve
(car-shuffle)
Contact: Kerrie Norris ph. 54478017

Supper
The usual arrangements for supper are as follows: members either bring a plate or pay $1 for supper. This small amount is used to reimburse members who purchase essential supper supplies.

Other Events

L.E.A.F. & Environment Victoria & B.D.E.C present

"All the Rivers run....
....dry?"

with **Freya Merrick**
Water Policy Co-ordinator, E.V.

We're running out of water. The C.S.I.R.O. says there'll be 50% less water in rivers within our life time.
Allocation of water from the Loddon & Campaspe rivers is starting later this year. Hear Freya Merrick talk about the pitfalls & how we can keep our rivers flowing free.

Where: LaTrobe Uni Ironbark Centre

When: 7.30pm Tuesday 21st August

Sustainable Housing and Gardens Tour

22nd September
10 am - 4 pm

starting at Gravel Hill Gardens
Rear of Salvation Army's Gravel Hill Site, Bramble Street

$10.00 per person, $ 25.00 per car load.

The Box - Ironbark Rally Camp

October 6 and 7
Paddy's Ranges Maryborough

see page 10 of *July Whirrakee* for details.
If interested, contact Kerrie Norris
ph. 54478017